

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Previously Presented) A coated fuel cell bipolar plate comprising:
 - a metal plate;
 - an electrically conductive coating over the metal plate; and
 - a corrosion resistant overcoating formed over the electrically conductive coating, the corrosion resistant overcoating including graphite;
 - wherein the electrically conductive coating bonds the corrosion resistant overcoating to the metal plate.
2. (Previously Presented) A coated fuel cell bipolar plate as claimed in claim 1, wherein the metal plate comprises aluminum.
3. (Previously Presented) A coated fuel cell bipolar plate as claimed in claim 1, wherein the electrically conductive coating is a graphite emulsion.
4. (Previously Presented) A coated fuel cell bipolar plate as claimed in claim 1, wherein the electrically conductive coating includes graphite particles in an organic suspension.
5. (Previously Presented) A coated fuel cell bipolar plate as claimed in claim 1, where the corrosion resistant overcoating includes exfoliated graphite.
6. (Previously Presented) A coated fuel cell bipolar plate as claimed in claim 1, wherein the corrosion resistant overcoating includes porosities that are filled by the electrically conductive coating.

7. (Previously Presented) A coated fuel cell bipolar plate as claimed in claim 1, wherein the corrosion resistant overcoating is a foil.
8. (Previously Presented) A coated fuel cell bipolar plate as claimed in claim 1, wherein the corrosion resistant overcoating includes particulate graphite flakes which have been processed through an intercalation process.
9. (Previously Presented) A coated fuel cell bipolar plate as claimed in claim 1, wherein the corrosion resistant overcoating is electrically conductive.
10. (Previously Presented) A coated fuel cell bipolar plate as claimed in claim 1, wherein the corrosion resistant overcoating is hydrophobic.
11. (Previously Presented) A coated fuel cell bipolar plate as claimed in claim 1, wherein the corrosion resistant overcoating is anisotropic.
12. (Previously Presented) A coated fuel cell bipolar plate as claimed in claim 1, wherein the corrosion resistant overcoating has a thickness approximately between 0.04 and 1.0 millimeters.
13. (Previously Presented) A method of manufacturing a coated bipolar plate for a fuel cell, the method comprising the steps of:
 - providing a metal plate;
 - providing an electrically conductive coating over the metal plate; and
 - providing a corrosion resistant overcoating over the electrically conductive coating, the corrosion resistant overcoating including graphite;
 - wherein the electrically conductive coating bonds the corrosion resistant overcoating to the metal plate.
14. (Previously Presented) A method as claimed in claim 13, wherein the electrically conductive coating is an emulsion, suspension or paint including graphite particles.

15. (Previously Presented) A method as claimed in claim 13, wherein the corrosion resistant overcoating includes exfoliated graphite.
16. (Previously Presented) A method as claimed in claim 13, wherein the step of providing the corrosion resistant overcoating includes pressing at least one sheet of graphite foil over the electrically conductive coating.
17. (Original) A method as claims in claim 16, wherein the metal plate is heated during the pressing step.
18. (Previously Presented) A method as claimed in claim 13, further comprising the step of: forming a flow field on the corrosion resistant overcoating.
19. (Previously Presented) A method as claimed in claim 13, further comprising the step of: mechanically deforming the metal plate, the electrically conductive coating and the corrosion resistant overcoating to create a flow field.
20. (Previously Presented) A method of manufacturing a coated bipolar plate for a fuel cell, the method comprising the steps of:
 - providing a metal plate;
 - providing an electrically conductive coating over the metal plate; and
 - providing a corrosion resistant overcoating over the electrically conductive coating, the corrosion resistant overcoating being electrically conductive and hydrophobic;
 - wherein the electrically conductive coating bonds the corrosion resistant overcoating to the metal plate.

21. (Previously Presented) A coated fuel cell bipolar plate comprising:
 - a metal plate including an outer surface;
 - an electrically conductive coating over the outer surface; and
 - an overcoating formed over the electrically conductive coating, the overcoating including graphite, the overcoating including porosities that are filled by the electrically conductive coating.
22. (Previously Presented) A coated fuel cell bipolar plate comprising:
 - a metal plate including an outer surface;
 - an electrically conductive coating over the outer surface; and
 - an overcoating formed over the electrically conductive coating, the overcoating including graphite, the overcoating being a foil.
23. (Previously Presented) A coated fuel cell bipolar plate comprising:
 - a metal plate including an outer surface;
 - an electrically conductive coating over the outer surface; and
 - an overcoating formed over the electrically conductive coating, the overcoating including graphite, the overcoating having a thickness approximately between 0.04 and 1.0 millimeters.
24. (Previously Presented) A method of manufacturing a coated bipolar plate for a fuel cell, the method comprising the steps of:
 - providing a metal plate with an outer surface;
 - providing an electrically conductive coating over the outer surface; and
 - providing an overcoating over the electrically conductive coating, the overcoating including graphite;

wherein the step of providing the overcoating includes pressing at least one sheet of graphite foil over the electrically conductive coating.

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25. (Previously Presented) A method as claimed in claim 24, wherein the metal plate is heated during the pressing step.